

REMARKS

In response to the action of August 8, 2007, Applicant asks that all claims be allowed in view of the amendments to the claims and the following remarks. This amendment is being filed concurrently with a Request for Continued Examination.

Applicant thanks Examiner Nguyen and his supervisor for courtesies extended to Applicant's representatives during the personal on October 10, 2007. This reply reflects the substance of the interview. Claims 1-25 are now pending, of which claims 1, 5, 14 and 17 are independent. Claims 1, 5, and 17 have been amended, claims 21-25 have been added, and claims 15 and 16 have been cancelled without prejudice or disclaimer of the subject matter therein. Support for the amendments and new claims may be found in the application at, for example, page 4, lines 8-20, page 5, lines 5-23, and FIG. 1A. No new matter has been introduced.

Claim 5 has provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/454,370 in view of Tamayo et al. (U.S. Patent No. 6,941,318). Without conceding obviousness, Applicant respectfully requests that this provisional rejection be held in abeyance until the claims of both this application and those in Application No. 10/454,370 are otherwise held to be allowable.

Claims 1-4 have been rejected as being directed to non-statutory subject matter. In order to expedite prosecution and without conceding agreement with the rejection, claim 1 has been amended. Applicant believes the amendment of claim 1 addresses all of the Examiner's concerns. Accordingly, applicant respectfully requests reconsideration and withdrawal of this rejection of claims 1-4.

Claims 1-7, 10-13 and 17-19 have been rejected as being anticipated by Altschuler (U.S. Patent No. 6,778,971 B1). Claims 8-9, 14-16 and 20 have been rejected as being unpatentable over Altschuler. Applicant respectfully submits that the amended claims are allowable over the cited references.

Independent claim 5, as amended, includes features that are neither described nor suggested by Altschuler. For example, claim 5 is directed to providing a software interface to multiple versions of a data mining model during execution of analytical tasks. Claim 5, as amended, recites obtaining from a front-end software application a first task request for

analytical processing. The first task request contains a first set of input values and a predefined task name, and the front-end software application is one of multiple front-end software applications operable to send task requests for analytical processing to the software interface. Claim 5 also recites using the predefined task name to identify, from predefined task definition information, a first version of the data mining model to be used when executing a first analytical task. Claim 5 further recites using a first input mapping function to map, in accordance with predefined mapping definition information included in the predefined task definition information, the first set of input values into a first set of mapped input values for use by an analytical software application when executing the first analytical task with the first version of the data mining model.

Claim 5 also recites, among other features, obtaining from the front-end software application a second task request for analytical processing, using the predefined task name to identify a second version of the data mining model to be used, and using a second input mapping function to map the second set of input values into a second set of mapped input values for use by the analytical software application when executing the second analytical task with the second version of the data mining model.

In contrast, Altschuler discloses techniques for analyzing tasks performed by computer users to develop a task analysis model, which can be used to provide a gratuitous help function or target marketing information to users. *See, e.g.*, Altschuler at Abstract and col. 1, lines 9-20. To do so, Altschuler discloses various techniques, including creating an object log on a computer to record what objects are used (11:63-12:6), mapping different types of objects into a uniform presentation (12:37-62, 16:25-45), storing task usage data (12:63-13:20), and generating a task analysis model in which tasks are clustered, sequenced, and assigned probabilities (13:21-37).

As such, Altschuler does not describe or such many of the features in amended claim 5. For example, Altschuler does not describe or suggest multiple versions of a data mining model, much less using a second input mapping function to map the second set of input values into a second set of mapped input values for use by the analytical software application when executing the second analytical task with the second version of the data mining model, as recited by amended claim 5. Nor does Altschuler describe or suggest obtaining from a front-end software application a first task request for analytical processing where the front-end software application

is one of multiple front-end software applications operable to send task requests for analytical processing to the software interface, as recited by claim 5.

In addition, Altschuler does not describe or suggest using the predefined task name to identify, from predefined task definition information, a first version of the data mining model to be used when executing a first analytical task, as recited by claim 5. In the rejection to claim 5, the action states that this feature is disclosed by Altschuler at column 7, lines 21-23. Applicant respectfully disagrees. The cited portion of Altschuler states "the present invention may function to determine a task analysis model from the converted (or non-converted, uniform) usage data." Altschuler, col. 7, ll. 21-23. However, Altschuler does not describe or suggest using the predefined task name to identify a first version of the data mining model to be used when executing a first analytical task. Rather, Altschuler describes how a task analysis model is generated from the usage data. Accordingly, Altschuler does not describe or suggest using the predefined task name to identify, from predefined task definition information, a first version of the data mining model to be used when executing a first analytical task, as recited by claim 5.

Accordingly, for at least these reasons, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 5 and its dependent claims 6 and 7.

Independent claim 1, as amended, recites a front-end software application operable to generate transaction data and send task requests to an analytical processing front-end application. A task request for analytical processing includes a predefined task name and input data for a data mining model. The front-end software application is one of multiple front-end software applications operable to send task requests for analytical processing to the analytical processing front-end application. Among other features, claim 1 recites a model version selection module that is operable to use a predefined task name in a task request received from the front-end software application to determine identify, from predefined task definition information, a specific version of the data mining model to be used during execution of an analytical task. The specific version of the data mining model is included in an analytical back-end application. The analytical back-end application is distinct from the analytical processing front-end application and includes multiple versions of the data mining model.

As described above with respect to claim 5, Altschuler does not include many of the claimed features. For example, Altschuler does not describe or suggest a front-end software application that is one of multiple front-end software applications and is operable to send task

requests for analytical processing to the analytical processing front-end application, as recited by claim 5. Nor does Altschuler describe or suggest that the analytical back-end application is distinct from the analytical processing front-end application and includes multiple versions of the data mining model, also as recited by claim 5.

Accordingly, for at least these reasons, Applicant respectfully requests that the Examiner reconsideration and withdrawal of the rejection of claim 1 and its dependent claims 2-4.

Independent claim 17 is directed to using multiple versions of a data mining model during execution of analytical tasks. Claim 17 recites importing, at design time, a first version of a data mining model having a first set of model values, where each model value has a data type. Claim 17 further recites using, at run time, the first version of the data mining model during execution of a first set of analytical tasks requested by a front-end software application, where the use of the first version of the data mining model is determined by an analytical processing front-end application using predefined task definition information. Claim 17 also recites importing, at design time, a second version of the data mining model having a second set of model values, where the second set of model values being a subset of the first set of model values. Claim 17 further recites using, at run time, the second version of the data mining model during execution of a second set of analytical tasks requested by the front-end software application, where the use of the second version of the data mining model is determined by the analytical processing front-end application using predefined task definition information.

As described above, Altschuler does not describe or suggest using multiple versions of a data mining model, much less all of the features recited by claim 17. For example, although Altschuler describes generating a task analysis model, Altschuler does not describe or suggest importing at design time a first version of a data mining model having a first set of model values, and importing at design time a first version of a data mining model having a first set of model values, as recited by claim 17.

Accordingly, for at least these reasons, Applicant respectfully requests that the Examiner reconsideration and withdrawal of the rejection of claim 17 and its dependent claims 18-19.

Independent claim 14 is directed to configuring a prediction task definition. Claim 14 recites providing a mining model class identifier for a data mining model, providing a unique version identifier to identify a unique version of the data mining model to be used during execution of a prediction task, providing one or more input data fields to hold input information,

and providing input mapping definition information to map the input information into mapped input information capable of being used by the unique version of the data mining model during execution of the prediction task. Claim 14 also recites providing one or more output data fields to hold output information generated upon execution of the prediction task, and providing output mapping definition information to map the output information into mapped output information capable of being used by a front-end software application. Claim 14 further recites storing the mining model class identifier for the data mining model, the unique version identifier, the one or more input data fields, the input mapping definition information, the one or more output data fields, and the output mapping definition information as a prediction task definition that is capable of being accessed when a request is received that the prediction task be performed.

As described above, Altschuler does not describe or suggest using multiple versions of a data mining model, nor does Altschuler describe or suggest providing input mapping definition information to map the input information into mapped input information capable of being used by *the unique version of the data mining model* during execution of the prediction task, as recited by claim 14.

Moreover, the action concedes Altschuler fails to disclose or suggest providing a unique version identifier to identify a unique version of the data mining model to be used during execution of a prediction task, and providing a unique version identifier to identify a unique version of the data mining model to be used during execution of a prediction task, as recited by claim 14. However, the action merely states that it would have been obvious to modify Altschuler to include those features. Applicant respectfully disagrees. Although Altschuler generating a task analysis model from collected task usage data (Abstract), Altschuler does not describe or suggest using multiple versions of a data mining model, so it would not be obvious to providing a unique version identifier to identify a unique version of the data mining model to be used during execution of a prediction task, and providing a unique version identifier to identify a unique version of the data mining model to be used during execution of a prediction task.

Accordingly, for at least these reasons, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 14.

Claims 8, 9 and 20, which each depend from one of independent claims 5 or 17, have been rejected as being unpatentable over Altschuler. Even assuming, for the sake of argument only, that the assertions of the rejection that features recited in claims 8 and 20 would have been

obvious is correct, that assertion does not remedy the failure of Altschuler to describe or suggest all of the features recited by claim 5 or claim 17, respectively. Accordingly, for at least these reasons, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 8, 9 and 20.

NEW CLAIMS

Each of claims 21-25 depends from a respective one of independent claims 1, 5, 14, 17 and 24. At least for the reason of that dependency and the reasons noted above with respect to independent claims 1, 5, 14, 17 and 24, applicant submits that claims 21-25 are allowable.

In addition, claim 21, which depends from claim 1, recites the analytical processing front-end includes a business rule engine operable to use output data generated by the analytical processing back-end application to determine whether an event should be triggered in the front-end software application. Altschuler does not describe or suggest the claimed business rule engine.

Claim 22, which depends from claim 21, recites using business rules and output resulting from executing the first analytical task with the first version of the data mining model to determine whether an event should be triggered in the front-end software application. Altschuler does not describe or suggest these features.

Claim 23, which depends from claim 14, recites that the data mining model includes one of multiple data mining models included in an analytical back-end application, the analytical back-end application being accessible to multiple front-end software applications through an analytical processing front-end application. Altschuler does not describe or suggest these features.

Claim 24, which depends from claim 17, recites that the data mining model includes one of multiple data mining models included in an analytical back-end application, the analytical back-end application being accessible to multiple front-end software applications through the analytical processing front-end application. Altschuler does not describe or suggest these features.

Claim 25, which depends from claim 24, recites using business rules and output resulting from executing the first set of analytical tasks with the first version of the data mining model to

determine whether an event should be triggered in the front-end software application. Altschuler does not describe or suggest these features.

Therefore, for at least these additional reasons, claims 21-25 are allowable.

CONCLUSION

Applicant submits that all claims are in condition for allowance

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

The fees in the amount of \$960.00 in payment of the Request for Continued Examination fee (\$810.00) and excess claims fee (\$150.00) are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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